

Zhang WY, Po AL. The effectiveness of topically applied capsaicin. A meta-analysis. Eur J Clin Pharmacol 1994;46:517-522.

Design: Meta-analysis of clinical trials

Brief summary of results:

- English language medical literature from 1980 to 1994 was searched using 2 databases: Institute of Scientific Information Database and Medline
- For inclusion in meta-analysis, the trial had to be randomized, double-blind, and placebo controlled
- Capsaicin was the only search term; hard copies of any article suggesting a clinical investigation were obtained
- Pooled odds ratios and response rate differences were calculated using standard meta-analytical methods (Mantel-Haenszel and DerSimonian-Laird)
- Therapeutic response to capsaicin was reported in 14 articles for 5 conditions: diabetic neuropathy (n=4), osteoarthritis (OA, n=3), post-herpetic neuralgia (n=2), psoriasis (n=4), and post-mastectomy pain (n=1)
- All 3 trials of OA were favorable for the use of capsaicin; the pooled results showed an odds ratio of 4.36 and a response rate difference of 0.29 (29%)
- Results for diabetic neuropathy, osteoarthritis, psoriasis, and mastectomy pain also were consistent with a therapeutic potential for capsaicin cream

Authors' conclusions:

- Capsaicin cream appears to be effective for the relief of OA pain
- True blinding is not likely because of the irritant effect of true capsaicin
- The use of capsaicin is justified for OA

Comments:

- The number of articles retrieved, the number excluded, methods of validity assessment, quality of the included articles, methods of reaching agreement on the validity of articles, and issues about publication bias are omitted
- The numbers in Table 2 are not internally consistent
- For example, trial #6 in table 2 (reference #18), shows that 5 men and 9 women were randomized, for a total of 14 patients; however, the numbers with and without clinical improvement add up to 337
- Trial #5 in Table 2 (reference #17) shows 25 men and 45 women, for a total of 70 patients; the clinical response numbers add up to 103
- Trial #5 (reference # 17) is a study of knee OA, reference #18 is hand OA, and the type of OA in reference #19 cannot be determined (it is from a journal supplement and the abstract is not available)
- The three trials of capsaicin for OA did appear to be favorable; it may be included as reasonable treatment if there is a consensus of the task force

Assessment: Inadequate (basic criteria for meta-analysis are not met) for evidence statement